

- a¹
- b. contacting test agents identified in step (a) with a cell having a patched loss-of-function phenotype and selecting those test agents that reverse at least in part the patched loss-of-function phenotype;
 - c. preparing a formulation including a test agent selected in step (b) and a pharmaceutically acceptable diluent;
 - d. identifying an animal having cells which have a patched loss-of-function mutation; and
 - e. administering the formulation to the animal in a amount sufficient to lessen the severity of the patched loss-of-function mutation.

50. (new) A method for preparing an agent for inhibiting growth of cells characterized by loss-of-function of a *patched* gene, comprising:

- a²
- a. comparing the amount of expression of a reporter gene in a first recombinant mammalian cell in the presence of a test compound with the amount of expression in the absence of the compound, or with the amount of expression in a second recombinant cell; and
 - b. identifying test compounds that change the amount of expression of the reporter gene in the first recombinant cell in the presence of the compound compared to the amount of expression in the absence of the compound, or compared to the amount of transcription or product in the second recombinant cell, wherein:

the first recombinant cell contains a reporter gene construct and expresses *patched*;

the second recombinant cell is identical to the first recombinant cell, except that it does not express a functional wild-type *patched*; and

the reporter gene constructs contains:

- (i) a transcriptional control element that is responsive to a patched-dependent intracellular signal that is generated by the interaction of a hedgehog protein with *patched*; and
- (ii) a reporter gene that encodes a detectable product and that is in operative association with the transcriptional control element;

- c. contacting a test agent identified in step (b) with a cell having a patched loss-of-function phenotype and selecting those test agents that inhibit growth of the patched loss-of-function cell; and
- f. preparing a formulation including a test agent selected in step (c) and a pharmaceutically acceptable diluent.

- Q2
cont.
- 51. (new) The method of claim 50, wherein the amount of transcription is determined by measuring the amount of mRNA that is transcribed from said reporter gene.
 - 52. (new) The method of claim 50, wherein the amount of transcription is measured by measuring the amount of reporter gene protein that is produced.
 - 53. (new) The method of claim 50, further comprising, prior to comparing the difference in the amount of transcription of the reporter gene, contacting the recombinant cell with a hedgehog agonist in an amount sufficient to change the level of transcription of said reporter gene.
 - 54. (new) The method of claim 50, wherein the reporter gene is selected from the group consisting of a gene encoding chloramphenicol acetyltransferase, a gene encoding firefly luciferase, a gene encoding bacterial luciferase, and a gene encoding alkaline phosphatase.
 - 55. (new) The method of claim 50, wherein the transcriptional control region includes at least one regulatory element selected from the group consisting of transcriptional regulatory elements of a patched gene, a transcriptional regulatory elements of a gli gene, and a transcriptional regulatory elements of a PTHrP gene.
 - 56. (new) The method of claim 50, wherein the patched protein is encoded by a nucleic acid which hybridizes at 5x SSC at 65° C to SEQ ID No. 18.
 - 57. (new) The method of claim 50, wherein expression of the reporter gene occurs upon hedgehog stimulation, and compounds are selected by ability to inhibit the patched-dependent expression of the reporter gene.
 - 58. (new) The method of claim 50, wherein the cell having a patched loss-of-function phenotype is a basal cell carcinoma.
 - 59. (new) A method for preparing an agent for inhibiting growth of cells characterized by loss-of-function of a *patched* gene, comprising: